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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/599,968	06/21/2000	Roberto Aiello	FANT-00-013	7156
44279	7590	02/25/2005	EXAMINER	
PULSE-LINK, INC. 1969 KELLOGG AVENUE CARLSBAD, CA 92008			PHU, PHUONG M	
			ART UNIT	PAPER NUMBER
			2631	

DATE MAILED: 02/25/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

**Office Action Summary**

Application No.

09/599,968

Applicant(s)

AIELLO ET AL.

Examiner

Phuong Phu

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

**Period for Reply**

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

**Status**

- 1) ☒ Responsive to communication(s) filed on 07 February 2005.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

**Disposition of Claims**

- 4) ☒ Claim(s) 15-19 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 15-19 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

**Application Papers**

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

**Priority under 35 U.S.C. § 119**

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some \* c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
  2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

**Attachment(s)**

- |   |   |
|---|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892)   | 4) <input type="checkbox"/> Interview Summary (PTO-413)<br>Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948)  | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152)             |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)<br>Paper No(s)/Mail Date <u>2/7/05</u> | 6) <input type="checkbox"/> Other: _____  |

## DETAILED ACTION

### *Claim Rejections - 35 USC § 102*

1. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

2. Claims 15, 16, 18 and 19 are rejected under 35 U.S.C. 102(e) as being anticipated by Aiello et al (2002/0018458), provided by the applicant in the IDS filed on 2/7/05.

The applied reference has a common assignee with the instant application. Based upon the earlier effective U.S. filing date of the reference, it constitutes prior art under 35 U.S.C. 102(e). This rejection under 35 U.S.C. 102(e) might be overcome either by a showing under 37 CFR 1.132 that any invention disclosed but not claimed in the reference was derived from the inventor of this application and is thus not the invention “by another,” or by an appropriate showing under 37 CFR 1.131.

-Regarding to claims 15, 16, 18 and 19, see figures 1 and 2, and sections [0052-0062], Aiello et al discloses a system (see figure 1) comprising:

a first slave transceiver (14a) having a receiver (figure 2) to receive UWB spread spectrum signals (see sections [0055] and [0060]);

a second slave transceiver (14b) to communicate with said first slave transceiver;

a master receiver (12) in communication with said first slave transceiver and said second slave transceiver, said master transceiver managing data transmissions and synchronization between said first slave transceiver and said second slave transceiver (see section [0062]), wherein said master transceiver comprises a master receiver (figure 2 and sections [0055] and [0060]) including a radio frequency (RF) front end (24), a pulse detector (32) and a data recovery unit (56) to receive spread spectrum RF signals having different modulation methods (PAM, ON-OFF keying) (see section [0070]).

***Claim Rejections - 35 USC § 103***

3. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

4. Claims 15-19 are rejected under 35 U.S.C. 103(a) as being unpatentable over Fullerton et al (5,677,927), previously cited, in view of Petch et al (6,243,372), newly-cited.

-Regarding to claims 15-19, Fullerton et al discloses a cellular telephone system using ultra-wideband spectrum signals for communications (see col. 12, line 65 to col. 13, line 2) wherein the cellular telephone system inherently comprises at least a base station (equivalent with the limitation “master transceiver”, and a first mobile unit and a second mobile unit (equivalent with “first slave transceiver” and “second slave transceiver”, respectively) in a particular cell for transmitting and receiving the ultra-wideband spectrum signals, and within the cell, the two mobile units communicate to each other via the base station wherein the base station can be configured to comprise a master receiver (see figure 14) including rf front end (1402); a

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pulse detector (1408) and data recovery unit (1424, 1410, 1414, 1418, 1428) for receiving spread spectrum RF signals having different modulation methods and/or having different pulse repetition frequencies (see also figures 10, 18, 19, 24 and col. 14, lines 44-67 and col. 15, lines 1-24).

Further regarding to claim 16, Fullerton et al does not disclose said received spread spectrum rf modulated signals modulated by on-off keying.

However, Fullerton et al teaches that said received spread spectrum rf modulated signals when still at the transmit site, they can be configured to be modulated signals (1204), modulated by PM, AM, PM, FSK, PSK, pulse FM, or the like and/or digital encoded signals, encoded, e.g., by Manchester encoding, being as electrical representatives of plural information (1020) from an information source (1018) to be transmitted (see figure 10 and col. 14, lines 44-57).

While it is well-recognized in the art that on-off keying's (e.g., ASK, PSK, FSK, or unipolar encoding) are ones or the like of PM, AM, PM, FSK, PSK, pulse FM or Manchester encoding for modulating an information source to form its electrical representative to be transmitted, and the examiner takes Official Notice, therefore, it would have been obvious for one skilled in the art, within his skills and upon design preference or system requirement, to implement Fullerton et al in such a way that said spread spectrum rf modulated signals would be configured as signals modulated by on-off keying, as also taught by Fullerton et al, so that capability of channelization of system would be enhanced.

Further regarding to claims 15-19, Fullerton et al does not disclose whether said base station manage synchronization between said first mobile unit and said second mobile unit.

Petch et al discloses a synchronization between first and second mobile stations (14) managed by a base station (12) in a cellular wireless system (see figure 1), by synchronizing master clock of the first and second mobile stations with the master clock of the base station in such a way that said base station (see figure 2) generates a master clock signal (42) (see figure 2) for controlling the timing of control signals "polling signal" (175) (see figure 5) which are sent from the base station to the mobile stations, the control signals which, in turn, are used to control the master clock (174) of the respective mobile stations wherein the mobile station master clocks generate respective mobile station clock signals (176) having the same frequency as the base station (see col. 7, line 61 to col. 8, line 10, col. 10, lines 43-55 and col. 11, lines 27-67).

Therefore for an application, it would have been obvious for one skilled in the art, at the time of the invention was made, within his skills and without affecting the overall system performance, to implement the base station in Fullerton et al system to manage synchronizations between the first mobile unit and the second mobile unit, as taught by Petch et al, in such a way that said base station generates a master clock signal for controlling the timing of control signals "polling signal" which are sent from the base station to the mobile units, the control signals which, in turn, are used to control the master clock of the respective mobile stations wherein the mobile station master clocks generate respective mobile station clock signals having the same frequency as the base station so that a network-wide synchronization among the base station and first and second mobile units would be established and maintained for optimal operation of the cellular wireless system, e.g., to minimize interference problems otherwise caused by non-synchronized base and/or mobile station transmissions in the same cell (see Petch et al, col. 1, lines 40-45).

***Response to Arguments***

5. Applicant's arguments filed on 2/7/05 with respect to claims 15-19 have been considered but are moot in view of the new ground(s) of rejection.

***Conclusion***

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Phuong Phu whose telephone number is 571-272-3009. The examiner can normally be reached on M-F (6:30-2:30).

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Mohammad Ghayour can be reached on 571-272-3021. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

*Phuong Phu*

Phuong Phu  
02/23/05

**PHUONG PHU  
PRIMARY EXAMINER**

Phuong Phu  
Primary Examiner  
Art Unit 2631